LRC-V-22 SOIL DEPTH AND QUALITY REQUIREMENTS FOR RECLAMATION OF RANGELANDS

CONTRACTOR: North Dakota State University Agricultural Experiment

Station

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PARTICIPANTS

<u>Sponsor</u>	<u>Cost Share</u>
North Dakota Lignite Council	\$ 9,050
North Dakota State University	24,025
ND Industrial Commission	14,430
Total	\$47,505

Project Schedule – 1 Year

Contract Date – 7/24/90 Start Date – 7/1/90 Completion Date – 6/30/91

Project Deliverables

Status Reports ✓ Final Report – 9/16/91 ✓

OBJECTIVE / STATEMENT OF WORK

The objective of this research is to determine soil replacement depths and quality necessary to meet productivity and species diversity requirements for reclaimed grassland as compared to reference areas within similar topographic units. This research will quantify the effect of soil quality, soil and spoil texture and topography on diversity and productivity of a given rangeland site. This was the third year of a proposed three-year program.

STATUS

This study found a relationship between suitable plant growth material (subsoil + topsoil) and herbaceous yield. With this information it can be shown that the required amount of subsoil required to be respread can be reduced. This could save substantial reclamation costs. This program was extended as LRC-VII-28.